Amendments to the Claims

1– 23. (Canceled).

24. (Currently Amended) A method of obtaining ~~modifying~~ a plant exhibiting a modified phenotype ~~of a plant grown under normal oxygen conditions~~, comprising:

growing, under non-hypoxic conditions, a plant that comprises ~~transforming a plant with~~ an expression vector comprising a nucleotide sequence encoding a plant non-symbiotic hemoglobin ~~or an~~ in an antisense orientation ~~sequence thereto~~, thereby yielding a ~~transformed~~ plant having ~~an altered~~ a reduced level of expression of non-symbiotic plant hemoglobin as compared to a ~~non-transformed~~ control plant that ~~is~~ does not comprise said expression vector ~~transformed to alter the level of expression of non-symbiotic plant hemoglobin~~, and

selecting ~~wherein said~~ a ~~transformed~~ plant exhibiting ~~exbhibits, under normal oxygen conditions,~~ a plant phenotype that is modified as compared to said ~~non-transformed~~ control plant, wherein said phenotype is selected from the group consisting of shoot or root apical dominance; flower color; shoot branching; and chlorophyll content~~,~~

~~wherein, when said transformed plant exhibits an increased level of expression of non-symbiotic hemoglobin as compared to said non-transformed control plant, said plant exhibits increased shoot apical dominance or greater root apical dominance under normal oxygen conditions as compared to said non-transformed control plant~~.

25-31. (Canceled).

32. (Previously Presented) The method of claim 24, wherein said expression vector comprises a repressible promoter that permits selective repression of expression of a plant non-symbiotic hemoglobin.

33. (New) The method of claim 24, wherein the selected plant exhibits increased flower pigmentation compared to the control plant.

34. (New) The method of claim 24, wherein the selected plant exhibits decreased chlorophyll content compared to the control plant.

35. (New) The method of claim 24, wherein the selected plant exhibits decreased root apical dominance compared to the control plant.

36. (New) The method of claim 24, wherein the selected plant exhibits increased shoot branching compared to the control plant.

37. (New) A method of obtaining a plant exhibiting a modified phenotype, comprising:

selecting a plant that comprises an expression vector comprising a nucleotide sequence encoding a plant non-symbiotic hemoglobin in antisense orientation, thereby having a reduced level of expression of non-symbiotic plant hemoglobin as compared to a control plant that does not comprise said expression vector, and that has been grown under non-hypoxic conditions, wherein said selected plant exhibits a plant phenotype that is modified as compared to said control plant, wherein said phenotype is selected from the group consisting of shoot or root apical dominance; shoot branching; flower color; and chlorophyll content.